

LISTING OF THE CLAIMS

The claims as pending are:

1 to 65. (canceled).

66. (previously presented): A library comprising a plurality of polynucleotides, each polynucleotide of the library comprising a vector and an insert, wherein each of the insert sequences consist essentially of accessible regions of cellular chromatin, wherein there are at least two different insert sequences and further wherein the library is obtained according to the method of:

(a) contacting cellular chromatin with a probe, wherein reaction of the probe with cellular chromatin results in polynucleotide cleavage at accessible regions of cellular chromatin;

(b) deproteinizing the cleaved chromatin of step (a);

(c) digesting the deproteinized chromatin of step (b) with a nuclease to generate a collection of polynucleotide fragments; and

(d) selectively cloning polynucleotide fragments comprising one end generated by probe cleavage.

67. (previously presented): A library according to claim 66, wherein each insert sequence consists of an accessible region of cellular chromatin.

68. (previously presented): The library of claim 66, wherein the cellular chromatin is obtained from cells at a particular stage of development.

69. (previously presented): The library of claim 66, wherein the cellular chromatin is obtained from cells of a particular tissue.

70. (previously presented): The library of claim 66, wherein the cellular chromatin is obtained from diseased cells.

71. (previously presented): The library of claim 66, wherein the cellular chromatin is obtained from infected cells.

72 to 124. (canceled).

125. (previously presented): The library of claim 66, wherein, in step (a), the probe is a nuclease.

126. (previously presented): The library of claim 125, wherein the nuclease is a restriction enzyme.

127. (previously presented): The library of claim 126, wherein the probe comprises a plurality of restriction enzymes.

128. (previously presented): The library of claim 66, wherein, in step (c), the nuclease is a restriction enzyme.